

REMARKS

Reconsideration of the application is requested.

Applicants acknowledge the Examiner's confirmation of receipt of Applicants' certified copy of the priority document for German Patent Application 100 17 362.4, filed April 7, 2000 supporting the claim for priority under 35 U.S.C. § 119.

Claims 1-11 remain in the application. No claims have been amended, added or canceled.

In "Claim Rejections - 35 USC § 103" on pages 2-5 of the above-identified Office Action, claims 1-5 and 7-11 have been rejected as being obvious over U.S. Patent No. 5,845,130 to Goff et al. (hereinafter Goff), under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and, therefore, the claims have not been amended to overcome the reference.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful. Claims 1, 9, 10 and 11 each call for, *inter alia*:

an input control information memory . . . storing an item of binary control information for each of the memory blocks of the input memory; and

an output control information memory . . . storing an item of binary control information for each of the memory blocks of the output memory.

The Goff reference discloses a mailbox traffic controller system having two processors 200, 208 coupled to a shared memory 202. The shared memory 202 includes an array of read/write registers (column 3, lines 46, 47 of Goff). Further, the system includes a traffic controller 204 which controls access of the processors 200, 208 to the shared memory 202. To that end, a processor 200, 208 which intends to access the shared memory 202 writes its identifier into the traffic controller 204. The processor 200, 208 gains access to the entire shared memory 202 by writing its identifier into the traffic controller 204. If a processor 200, 208 desires to control access to the shared memory 202 and, when reading the traffic controller 204, finds the identifier of the other processor 208, 200 already stored therein, the requesting processor 202, 208 knows that it must wait before attempting to control access to the shared memory 202 (column 4, lines 27 to 32 of Goff).

As stated above, claim 1 of the instant application calls for "an input control information memory ... storing an item of binary control information for each of said memory blocks of said input memory" and "an output control information memory ... storing an item of binary control information for each of said memory blocks of said output memory." Claims 9, 10 and 11 contain similar limitations.

Therefore, the subject matter of claims 1, 9, 10 and 11 of the instant application is distinguished in two respects from the circuit disclosed in Goff:

- The traffic controller 204 fails to handle control information which refers to the individual registers of the shared memory 202 (which correspond to the individual memory blocks of the input or output memory as recited in claims 1, 9, 10 and 11 of the instant application). Thus, the traffic controller 204 is not in a position to monitor or control blockwise access to the shared memory 202. Quite the contrary, the identifier recorded in the traffic controller 204 constitutes control information relating to the entire shared memory 202.

- The traffic controller 204 fails to operate on binary control information. As explained in column 4, lines 4 to 6 and lines 19 to 24 of Goff, the traffic controller 204 stores a zero (indicating that no processor currently controls access to shared memory 202), an identifier of the first processor 200 (identifying that processor 200 currently controls access to the shared memory 202) or an identifier of the second processor 208 (identifying that processor 208 currently controls access to the shared memory 202). Thus, since at least three different values must be storable in the traffic controller 204 for controlling memory access, Goff fails to teach using an item of binary control information for memory access control.

As a result, the subject matter of claims 1, 9, 10 and 11 of the instant application is not disclosed by Goff.

Moreover, the subject matter of claims 1, 9, 10 and 11 is non-obvious over the teaching of Goff.

It is noted that not only is the structure recited in the claims of the instant application different from that of Goff, but the purpose of the traffic controller 204 is also different from the purpose of the input or output control

information memories recited in the claims of the instant application. More specifically, the traffic controller 204 ensures that only one of the processors 200, 208 obtains access control to the (entire) shared memory 202. That prevents access contention, however, it does not prevent data written from one of the processors 200, 208 from being overwritten later before being read. In contrast thereto, the provision of blockwise binary control information according to the present invention makes it possible to block rewriting before read-out of a memory block. Therefore, since two different memory control approaches (control for preventing access contention versus control for preventing data overwriting before read-out) are used in Goff and the present invention as claimed, there is neither a motivation nor a straightforward way to apply the teaching of Goff for meeting the object underlying the present invention.

Clearly, Goff does not show an input control information memory storing an item of binary control information for each of the memory blocks of the input memory, nor an output control information memory storing an item of binary control information for each of the memory blocks of the output memory, as recited in claims 1, 9, 10 and 11 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 9, 10 and 11. Claims 1, 9, 10 and 11 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1.

Finally, applicants appreciatively acknowledge the Examiner's statement that claim 6 is merely objected to as being dependent upon a rejected base claim. In light of the above, Applicants respectfully believe that rewriting of claim 6 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 1-11 are solicited.

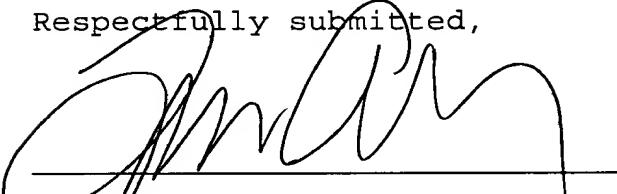
In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith

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should be charged to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Please charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,


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